

City of Chino Hills
Open Space Management Plan

1. APPLICATION

Applicant (Agency & address – including zip) City of Chino Hills City Manager's Office 14000 City Center Drive Chino Hills, CA 91709		Proposed Date of Completion: June 2012															
<div style="text-align: right; margin-right: 20px;">Check one</div> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>City</td><td style="text-align: center;">X</td></tr> <tr><td>County</td><td></td></tr> <tr><td>MPO</td><td></td></tr> <tr><td>COG</td><td></td></tr> <tr><td>RTPA</td><td></td></tr> <tr><td>JPA</td><td></td></tr> <tr><td>Joint Proposal</td><td></td></tr> </table>		City	X	County		MPO		COG		RTPA		JPA		Joint Proposal		Grant Amount Requested: \$250,000	
City	X																
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Joint Proposal																	
If Joint Proposal, list participating entities/ contact person:																	
Lead Applicant's Name: City of Chino Hills																	
Title of Proposal (summarize the deliverable to be funded by this grant) Open Space Management Plan																	
Applicant's Representative Authorized in Resolution Name: Michael S. Fleager Title: City Manager Phone: 909-364-2610 Email: mfleager@chinohills.org		Person with Day to Day Responsibility for Plan (if different from Authorized Representative) Name: Kathy Gotch Title: Assistant City Manager Phone: 909-364-2614 Email: kgotch@chinohills.org															
<i>Check all of the following that are incorporated or applicable to the proposal:</i>																	
Focus Area		Program Objectives															
X	Focus Area #1		Applying for 20% EDC set aside														
	Focus Area #2																
	Focus Area #3	X	Improve air and water quality														
	Eligibility Requirements (mandatory)	X	Promote public health														
X	Consistent with State Planning Priorities	X	Promote equity														
X	Reduces GHG emissions on a permanent basis	X	Increase affordable housing														
X	Collaboration requirement	X	Increase infill and compact development														
	Priority Considerations	X	Revitalize urban and community centers														
X	Demonstrates collaboration & community involvement	X	Protect natural resources and agricultural lands														
X	Addresses climate change impacts	X	Reduce automobile usage and fuel consumption														
X	Serves as best practices	X	Improve infrastructure systems														
X	Leverages additional resources	X	Promote water conservation														
	Serves an economically disadvantaged community	X	Promote energy efficiency and conservation														
	Serves a severely disadvantaged community	X	Strengthen the economy														
I certify that the information contained in this plan application, including required attachments, is complete and accurate																	
Signature: Applicant's Authorized Representative as shown in Resolution		<div style="text-align: right;"> Date </div>															
Print Name and Title: Michael S. Fleager, City Manager																	

2. PROPOSAL SUMMARY STATEMENT

The City of Chino Hills (population 78,971) is seeking Sustainable Communities Planning Grant and Incentives Program funds to develop an Open Space Management Plan (Plan). The Plan will serve as the City's guiding vision for land use and stewardship, natural resource protection and enhancement, and the and/or clustering of development sites. It will provide the City with a roadmap for sustainable development by ensuring that open space is preserved to offset carbon emissions, future growth is focused toward infill and/or cluster development, and the future planning efforts support the Greenhouse Gas (GHG) emission reduction targets of AB 32, and the implementation of SB 375.

Through the Open Space Management planning process, the City intends to:

- Identify and inventory all undeveloped open space, including a complete inventory of assets;
- Utilize technical experts to study agriculture, water quality, economics, soils, hillsides, housing, fish & game, native habitat restoration, and native plant restoration;
- Develop a map of potential uses (recreation, trail, equestrian, community farms, avocado orchards, low-water-use agriculture, animal boarding/ breeding);
- Adopt standards and policies related to the management and preservation of the open space;
- Identify potential locations for a mitigation bank to restore and enhance wetlands;
- Promote infill and/or cluster development;
- Encourage non-motorized transit by increasing pedestrian/bicycle access to trails and open space within Chino Hills and connecting to Chino Hills State Park and neighboring communities;
- Increase access to remote areas to enable firefighters to prevent/quickly contain wildfires;
- Encourage the planting of native trees in order to: 1) offset carbon emissions; 2) provide shade to help combat urban heat island effects; and 3) reduce water consumption and fire danger associated with non-native plants;
- Promote the use of alternative irrigation efforts (e.g., recycled water, weather-based controllers, stormwater drain bypass); and
- Investigate locations for alternative energy generation (e.g., solar panels or wind turbines).

Chino Hills is a primarily residential and commercial community located at the crossroads of San Bernardino, Orange, Los Angeles, and Riverside counties. Despite its proximity to large metropolitan communities, Chino Hills has a history of preserving open space and environmental resources, and clustering its development along transportation corridors.

Chino Hills incorporated in 1991 and is quickly approaching build-out. As pressure to build on undeveloped space increases, the need to protect public land and open space becomes more critical. According to the U.S. EPA, naturally vegetated lands in the U.S. absorb an estimated 20-46% of total U.S. GHG emissions. Preserving valuable green space will help to offset the impact of development on the environment. But preservation must be accompanied by proper management, in order to ensure the benefits of open space are fully realized. An Open Space Management Plan will provide the City with tools to ensure new developments are clustered and planned with regard to the importance of open space, for the protection of natural resources, and air and water quality.

The City proposes to utilize the services of a qualified consultant to develop the Open Space Management Plan. The total estimated project cost is \$300,000 with \$250,000 (83%) being requested in State grant funds and \$50,000 (17%) contributed by the City as an in-kind match. The planning process is expected to take 18 months with a projected close out date of June 30, 2012. The City has extensive experience managing similar planning projects that have been completed on-time and within budget.

3. PROPOSAL DESCRIPTION

STEP 1: THRESHOLD REQUIREMENTS

1. Consistent with the State's Planning Priorities

1a. Promote Infill Development and Invest in Existing Communities: The City of Chino Hills proposes to complete an Open Space Management Plan (Plan) that will encourage infill and/or cluster development, allowing the City's permanent open space to be expanded and maintained.

Since its incorporation, Chino Hills has actively sought and maintained 3,000 acres of natural open space. This land contains hillsides, canyon and environmental resources, and is adjacent to another 16,000 of public open space in the Chino Hills State Park. Chino Hills has directed its residential and commercial development to be located on the flatter, less constrained areas. As these clusters approach build-out, pressure to build on the City's remaining private open space has increased.

The Open Space Management Plan will provide the City with tools to ensure that new developments are clustered and planned with regard to the preservation of open space, both for the protection of natural resources and for the quality of air and water. Through the Plan, City staff will properly identify and designate open space boundaries and document additional natural resources located within these sites. The Plan will also allow for investment in existing communities by better managing and increasing access to open space in proximity to existing neighborhoods, focusing new development projects to more urban zones, and offering additional protection to the community from wildfires by improving access for firefighters and potentially increasing firebreaks.

1b. Protect, Preserve, and Enhance Natural and Recreational Resources: The primary objective of the Open Space Management Plan is to protect, preserve, and enhance natural resources, and to identify appropriate sites for infill and/or cluster development. The Plan will accomplish this objective through several strategies including: 1) reviewing and updating current maintenance and open space management standards; 2) developing a full inventory of public open space and private undeveloped land appropriate for open space preservation (including surveying and photographing assets and challenges); 3) engaging experts to study agriculture, economics, soils, housing, land use, landscape architecture, fish and game, native habitat and native plant restoration; 4) developing a map of potential uses and future infill and/or cluster development and 5) training maintenance staff and contractors. The work will allow the City to address high priority or urgent protection issues, as well as provide the foundation for future use of open space to encourage recreation and enhance natural environments.



1c. Encourage Location and Resource Efficient Development: The Open Space Management Plan will encourage location and resource efficient development by protecting open space. Preserving the City's open space resources will require that developers look inward for new projects. Infill and/or cluster development, rather than expansion into precious natural space, will result in neighborhoods and retail spaces that can share infrastructure and lessen their impact on the environment. It will also improve the potential for public transportation or ride share options, because residents will be more densely concentrated.

2. Reduce Greenhouse Gas Emissions

2a. California's Global Warming Solutions Act of 2006

i. Reducing GHG Emissions as Compared with Business as Usual through 2020 and Beyond: The Open Space Management Plan will result in a reduction in Greenhouse Gas (GHG) emissions by:

- Promoting infill and/or cluster development by protecting open space;
- Developing a management plan that will allow for additional tree plantings on existing public open space and the preservation of future privately held open space. (According to a study focused on the greater Chicago region, 1 acre of tree cover absorbs 2.2 tons of carbon per year. McPherson et al, 1994);
- Reducing vehicle miles traveled (VMT) by increasing access to a network of 37 miles of hiking and horseback riding trails within the open space; and
- Reducing emissions from wildfires, by making fires easier to fight and prevent (e.g., through improved land management, improved access to remote area by firefighters and increase in fire breaks).

ii. Indicators Used to Measure How Proposal Will Meet GHG Emissions Reduction Targets or

Requirements: The City aims to achieve measurable decreases in 8-hour Ozone Levels and fine particulate matter (PM2.5) as a result of the implementation of the Open Space Management Plan (see Section 4c for a complete list of indicators). The City will also utilize the planning process and the tools being developed by the Governor's Office of Planning and Research (OPR), Southern California Air Quality Management District (SCAQMD), and Southern California Association of Governments (SCAG) to further refine and develop the indicators and the methods of measurement.

2b. Regional Plan

i. Citation to Regional Plan(s): The proposed Chino Hills Master Plan is consistent with the principles of SCAG's Compass Blueprint (<http://www.compassblueprint.org/about/principles>).

ii. Consistency with GHG Emission Reduction Strategies in Regional Plan: The City is committed to developing a Open Space Management Plan that meets the GHG reduction strategies of the Compass Blueprint, which include:

- **Improving Mobility for All Residents**, by increasing access to open space trails;
- **Fostering Livability for All Residents**, by encouraging infill and/or cluster development, protecting open space, and preserving natural and green space;
- **Enabling Prosperity for All People**, by supporting equity in access to natural spaces and providing opportunities for community gardens or agriculture; and
- **Promoting Sustainability for Future Generations**, by focusing future growth on existing neighborhoods in order to reduce vehicle miles traveled and preserve rural and natural areas.

3. Collaboration Requirement

A representative from SCAG has signed a letter of support (included in Section 6) indicating that the City's proposed Open Space Management Plan is aligned with the goals and objectives of SCAG's Compass Blueprint. The City has also obtained letters of support from the Southern California Air Quality Management District, San Bernardino County, and the Chino Valley Independent Fire District. The City will seek additional collaboration from these organizations, as well as from the community, by inviting their participation on an expert advisory panel that will meet throughout the planning process.

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The planning process will provide the City with the opportunity to leverage additional resources to preserve and enhance open space, as well as to engage in public outreach in order to ensure open space management is a community endeavor. The Open Space Management Plan will increase access to trails and open space for use by both Chino Hills and other nearby communities, including less advantaged residents of Chino and Pomona.

STEP 2: PROGRAM OBJECTIVES

A. EDC Set Aside Applications

NOT APPLICABLE. The City is not applying under the 20% EDC set-aside.

B. Improve Air and Water Quality

Air Quality

1. Strategies: The City of Chino Hills' Open Space Management Plan will decrease ozone levels and particulate matter by preserving valuable open space and supporting carbon offset measures, while promoting infill and/or cluster development. These strategies will ensure the protection of natural resources and important agricultural land and will result in greenhouse gas (GHG) emissions reductions by: 1) reducing automobile usage through infill/cluster development and trail access; 2) providing firefighters with better access to remote areas to more quickly extinguish wildfires, and 3) reducing urban heat island effects and offsetting carbon emissions through promoting tree planting.

The need for reducing GHG emissions is critical – the urban portions of San Bernardino counties are among the smoggiest regions of the United States. One of the largest contributors to poor air quality in the area is from car emissions, with the average automobile producing 5.5 metric tons of carbon dioxide equivalent tons of GHG each year. In order to reduce greenhouse gas emissions and thereby improve air quality, the Open Space Management Plan will:

- 1) Increase access to trails and open space to encourage non-motorized transit;
- 2) Promote infill and/or cluster development to provide residents the option for walking, biking, and using public transportation to meet their daily needs;
- 3) Reduce fire danger by encouraging the use of native plantings;
- 4) Reduce the smoke from fires by providing better access to natural lands to help prevent and combat fires; and
- 5) Promote tree planting and preservation, in order to:
 - a. Offset emissions (a single tree will absorb approximately 1 ton of carbon dioxide over its lifetime); and
 - b. Counteract heat island effects by providing shade (according to a Chicago-area study, increasing tree cover by 10% could reduce total heating and cooling energy use by 5-10%. McPherson et al, 1994).



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During the development of the Open Space Management Plan, the City will investigate best practices, collaborate with air quality control experts, and participate in regional planning efforts to ensure that the Plan includes the most advanced strategies.

2. Indicators: 1) Decrease ozone levels; 2) Decrease particulate matter; 3) Increase use of non-motorized transit.

3. Consistent with State Implementation Plan: As part of a comprehensive effort, Chino Hills will achieve national ambient air quality standards (NAAQS) through the reduction of GHG emissions caused by automobile usage, fire, and smoke. The Open Space Management Plan is consistent with the South Coast Air Quality Management District's 2007 Air Quality Management Plan (AQMP) by reducing the number of vehicle miles traveled through an increase in non-motorized transit, and by promoting measures to reduce the urban heat island effect.

Water Quality

1. Strategies: The Plan will improve the water quality of Chino Hills by reducing pollutant stormwater runoff through expanding and preserving open space. Maintaining ample open space preserves the natural process of infiltration and ground water recharge, which directly improves water quality.

Impervious surfaces in developed areas increases watershed and pollutant runoff that can carry harmful elements such as hydrocarbons and metals, fertilizers, waste from stables, pesticides, auto fluids, and vehicle emissions into the water supply. The natural landscape in open space allows water to flow through the natural filters of soil and vegetated stream banks. Open space is a very cost-effective means of protecting water quality.

2. Indicators: 1) Increase water quality; 2) Increase ground water recharge; and 3) Decrease pollutant stormwater runoff from development by preserving open space.

3. Consistent with IRWMP: The Open Space Management Plan will be consistent with the 2009 *Santa Ana Integrated Watershed Plan: An Integrated Regional Water Management Plan* (IRWMP).

Specifically, in alignment with the IRWMP, the Open Space Management Plan will promote the reduction of urban runoff by preserving natural land and open space, in order to allow for the natural filtration process to occur and for ground water to be recharged.

C. Promote Public Health

1. Indicators: 1) Increase in physical activity; 2) Reduction in obesity and related diseases; 3) Reduction of heart disease.

2. Addresses and Responds to Healthy Community Definition: The Open Space Management Plan fosters a healthy community by providing for increased physical activity; increasing the use of non-motorized transit; preserving natural land and open space; encouraging infill and/or cluster development; increasing air, soil, and water quality; and ultimately creating a thriving community where residents, employees, and neighboring communities can enjoy access to recreational and nature opportunities.

The Open Space Management Plan will meet the public health needs of Chino Hills' residents by:

- Increasing use of non-motorized transit through trails, paths and open space. According to the *Guide to Community Preventive Services*, to achieve *Healthy People 2010* objectives, communities need to provide "... greater access to places for physical activity," including trails for walking and biking;

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- Providing complete and livable communities through access and use of open space for recreational and physical activities; and
- Promoting healthier food choices by encouraging the development of community gardens.

The focus of the Open Space Management Plan is to preserve and better manage natural and open spaces, including providing opportunities for farming and agriculture through nurseries, avocado groves, and community gardens. The Plan will also improve air, soil, and water quality through reduced GHG emissions from automobile usage, fire, and smoke; increased infiltration and ground water recharge; and reduced stormwater runoff containing harmful toxins and waste.

The Plan will also support health, social equity, and the healthy development of children and adolescents by providing additional access to recreational opportunities and nature with trails, bikeways, and open space for all. This access provides a healthier alternative to the 4.5 hours a day children (ages 2-17) spend watching some type of electronic device – an activity that has been directly tied to obesity. As the Plan is implemented, the City will be promoting health and social equity by providing open space that is easily accessible to, and readily available, for everyone in the community.



3. Identification and Mitigation of Negative Health Consequences: The Open Space Management Plan will be developed and implemented with input from an expert advisory group of who will collaborate and share knowledge to ensure public health co-benefits and mitigation of possible negative health consequences. The purpose of developing the Open Space Management Plan is to ensure that the natural spaces are preserved *and* well managed, as poorly managed open space could lead to detrimental public health effect (e.g., contaminated water systems, increased fire danger). Both benefits and consequences will be taken into consideration during the development and implementation of the planning process.

4. Coordination and Collaboration with Local Health Department: The City of Chino Hills will seek to collaborate with the San Bernardino County Department of Public Health through their participation on the expert advisory panel to ensure best practices related to public health are incorporated into the Open Space Management Plan.

D. Promote Equity

1. Strategies: The Open Space Management Plan will promote equity by preserving and enhancing public access to open space resources, which include approximately 37 miles of trails, for everyone in Chino Hills and the surrounding communities to easily access, utilize, and enjoy. The City's open space connects to an additional 16,000 acres of open space in the adjacent Chino Hills State Park. People of all ages, ethnicity, income levels, and physical abilities will have additional access to recreational opportunities and nature as a result of implementation of the Plan. The CDC states that regular physical activity "helps older adults remain independent and enhances the quality of life for people of all ages."¹

¹ Promoting Healthy Eating and Physical Activity for A Healthier Nation. Carol A. Macera, PhD, et al. Centers for Disease Control and Prevention. <http://www.cdc.gov/healthyYouth/publications/pdf/PP-Ch7.pdf>. Retrieved August 12, 2010.

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Open space allows for residents to participate in more social activities as well by providing common space to participate in community activities.

Preservation and management of the open space will provide equity for the Chino Hills and surrounding communities by:

- Providing access to recreational opportunities and nature for all;
- Promoting infill and/or cluster development, which will provide more opportunities for affordable housing;
- Providing additional opportunities for farming, agriculture, and community gardens;
- Investigating alternative energy opportunities, potentially leading to reduced energy costs; and
- Improving air, soil and water quality for all residents by reducing GHG emissions, increasing infiltration and ground water recharge, and reducing stormwater runoff containing harmful pollutants.

The Plan will include designs to ensure accessibility and safety of nature, trails, bikeways, and open space, and will include improved non-motorized transit connectivity between open space and developed areas for pedestrians and bicyclists.

2. Indicators: 1) Increased access to recreation and nature opportunities; 2) Increased employment opportunities through farming, agriculture, and alternative energy; 3) Improved air, soil, and water quality; and 4) Increase in high density housing.

3. Stakeholder Engagement: The City will seek representatives from the community and users of open space to serve as part of the expert advisory group to ensure stakeholder involvement throughout the planning process. In addition, the City will hold public meetings to present the proposed Open Space Management Plan prior to its adoption.

E. Increases Housing Affordability

1. Strategies: By preserving open space, the Plan will encourage infill and/or cluster development and discourage “sprawl.” This effort will help to alleviate the additional “hidden” housing costs in the form of higher utility bills and additional transportation expenses associated with sprawl. Reductions in hidden costs will mean residents have additional dollars in their pockets each month to pay their mortgage or rent. In addition, by clearly identifying available parcels and encouraging developers to cluster at higher densities, home developers will be able to provide more cost effective housing more quickly, potentially leading to more affordable housing.

2. Indicators: 1) Increase housing supply; 2) Increase in the use of non-motorized and public transportation; and 3) Decrease homeowners utility and transportation costs.

3. Consistent with Housing Affordability Requirements under the RHNA: The City is committed to meeting the objectives outlined in the Regional Housing Need Plan (RHNP), which require 1,040 new housing units with 62% serving low to moderate income persons. The Open Space Management Plan will focus on three of the main objectives of the RHNP: 1) increasing the housing supply; 2) promoting infill and/or cluster development; and 3) protecting environmental and agricultural resources.

F. Promote Infill and Compact Development

1. Strategies: The Open Space Management Plan will focus on strategies that encourage infill and compact development by clustering new residential and commercial development. The population of Chino Hills has nearly doubled since it was incorporated as a City in 1991, and the demand for new housing remains high. An Open Space Management Plan will allow the City to clearly identify remaining

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open space parcels, ensure the protection of undisturbed lands for public open space, and encourage future growth on parcels that are closest to the housing/commercial clusters and/or have already seen development. The Plan will likely result in recommendations for changes in zoning ordinances or overlays to protect open space and designate development areas.

2. Indicators: 1) Increase the density of jobs and housing around development clusters; and 2) Increase acreage of protected open space.

G. Revitalize Urban and Community Centers

1. Strategies: The Open Space Management Plan will revitalize urban and community centers by discouraging Greenfield development and encouraging infill and/or cluster development. Through the planning process the City will conduct a detailed inventory of open space, prioritize areas for preservation, and develop a plan to promote best practices for infill and/or cluster development opportunities. In addition, by preserving open space, the community center of Chino Hills will retain its value by providing easy accessibility to natural and recreational opportunities.

The Plan will revitalize urban and community centers as follows:

- Promote infill and/or cluster development and therefore, discourage Greenfield development;
- Provide increased access to recreational and nature opportunities;
- Create a plan for use of California friendly plantings for use in open space planting and future infill and/or cluster development; and
- Investigate opportunities for additional farming and agricultural opportunities including orchards and community garden space.

2. Indicators: 1) Increase dollars spent serving infill and/or cluster development; and 2) Increase access from urban and community centers to recreational and nature opportunities.

H. Protect Natural Resources and Agricultural Land

1. Strategies: The Open Space Management Plan focuses on protecting natural resources and agricultural land through the preservation and enhancement of permanent open space. The City's open space currently contains 37 miles of trails and connects to an additional 16,000 acres of public space in the adjacent Chino Hills State Park.

Chino Hills began as a rural, unincorporated community with land used for dairies and equestrian needs. Since its 1991 incorporation, the City of Chino Hills has nearly doubled its population. Rapid growth is a problem facing much of Southern California. According to SCAG, between 1996 and 2004, an estimated 230,000 acres of farmland and grazing land were converted to non-agricultural uses and/or applied for development entitlements.²

The Plan to preserve, enhance, and add open space will include the following strategies:

- Inventory and photograph all open space parcels;
- Conduct studies of land resources, with the assistance of technical experts, to identify unique habitat and resources (e.g., agriculture, water quality, economics, soils, housing, land use planning, landscape architecture, fish & game, native habitat restoration, and native plant restoration); provide recommendations on preserving resources and increasing connections between residents and nature;

² Southern California Association of Governments. *Open Space and Habitat: FINAL Regional Comprehensive Plan*. 2008. www.scag.ca.gov/rcp/pdf/finalrcp/f2008RCP_OpenSpaceHabitat.pdf. Retrieved August 10, 2010.

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- Develop a map of potential uses and conservation areas (including opportunities for farming and agriculture);
- Develop a manual for maintenance standards (including native or California-friendly plant palette) and policies;
- Provide training on new standards and management techniques to maintenance staff and developers;
- Identify potential zoning overlays to protect land from certain uses and contamination;
- Develop a priority list of infrastructure projects to improve access to and maintenance of open space; and
- Create a plan to acquire more publicly owned open space as feasible.

2. Indicators: 1) Increase acres of protected and/or conserved lands; 2) Increase acres of habitat avoided; 3) Increase access to recreation and nature opportunities; and 4) Increase job opportunities in agriculture and open space maintenance.

3. Consistent with the California Wildlife Action Plan, Natural Community Conservation Plan, and the Surface Mining and Reclamation Act: The Open Space Management Plan is consistent and aligned with the California Wildlife Action Plan, the Natural Community Conservation Plan, and the Surface Mining and Reclamation Act. The Plan will allow the City to identify and provide conservation planning and assistance to ensure healthy ecosystems including the protection of native wildlife and habitats within the open space. The Plan will also provide planning to conserve the natural communities, include zoning overlays to avoid overuse and contamination of the land, and allow the City to identify and protect important mineral resources.

I. Reduce Automobile Use and Fuel Consumption

1. Strategies: The City will reduce automobile use, VMT, and fuel consumption by increasing access to non-motorized transit throughout the City's 37 miles of nature trails and bikeways; improving connectivity between open space and developed areas, and increasing potential for public transportation options by promoting infill and/or cluster developments. Currently, public transportation within Chino Hills is limited to one bus stop. Increased infill and/or cluster development will allow the City and the County Transportation Agency to consider expanding service, to make public transportation a viable option for residents and commuters. The long-term impact will be a decrease in VMT leading to the reduction of GHG emissions and reduction in traffic congestion.



2. Indicators: 1) Increase use of non-motorized transportation; 2) Increase trail usage or connectivity from trails to bus stops; 3) Decrease vehicle miles traveled and fuel consumption; and 4) Reduce GHG emissions.

3. Consistent with the California Transportation Plan: The Plan is consistent and aligned with the California Transportation Plan (CTP) and local agency plans by promoting: reduced automobile usage, increased opportunities for public transportation, improved mobility and accessibility, and reduced GHG emissions.

J. Improve Infrastructure Systems

1. Strategies: Improving infrastructure to allow access to recreation and nature opportunities is a key element of the Open Space Management Plan, as poorly managed open space can have detrimental

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effects on the community. The Plan will identify priority projects that will allow for increased use of non-motorized transit with nature trails and bikeways. These infrastructure improvements will also increase access to remote areas for the fire department, so that they might prevent and more quickly contain wildfires. The Open Space Management Plan will improve the infrastructure systems of Chino Hills by increasing access to recreation and nature opportunities, increasing access for emergency personnel to remote areas, and planning for zoning overlays to improve and protect the sustainability of the infrastructure in the future.

The Plan will also identify additional infrastructure improvements that would allow for the development of agricultural projects such as orchards, avocado farms, and community garden space.

2. Indicators: 1) Increase the use of non-motorized transit; 2) Increase access to remote areas for emergency personnel; 3) Increase park acres per residents through access to open space.

K. Promote Water Conservation

1. Strategies: The Open Space Management Plan will promote water conservation by developing open space maintenance policies and standards, which may include the use of recycled water for irrigation purposes, increased use of bioswales for ground filtration, and increased use of native and California friendly plantings.

When irrigation is identified as a component of maintenance, the City will incorporate recycled water irrigation strategies, including storm water drain bypass systems to capture runoff, weather-based controllers, and bioswales. Recycled water will provide a drought proof water supply for irrigation purposes and conserve drinking water. In addition, weather-based controllers will be utilized to respond to environmental conditions and provide the correct amount of water needed for irrigation. Bioswales will be utilized for proper ground filtration. The Plan will develop zoning overlays for use in future open space landscaping opportunities to ensure the best practices are used for water conservation.

The Plan will provide for increased use of California friendly or native plants, trees, and shrubs, which require less irrigation once established. This type of landscaping will be used to augment natural open spaces, or mitigate damages done by previous development attempts or wildfires.

Finally, by maintaining open space, and limiting development to infill/clusters, the natural space will encourage recharge of the City's groundwater.

2. Indicators: 1) Reduced water usage for irrigation; 2) Increased water efficient irrigation practices; 3) Increase use of recycled water; and 4) Increased use of California native and low-water use plantings.

3. Consistent with State's 20% by 2020 Plan: The Plan will assist the State in reaching its reduction in statewide per capita urban water use by 20 percent by 2020 by using the water efficient irrigation practices and native and California friendly plants described above. Due to recent drought conditions, water conservation is vital to ensure water sustainability for future generations.

4. Consistent with Integrated Regional Water Management Plan: The Open Space Management Plan is consistent with the 2009 *Santa Ana Integrated Watershed Plan: An Integrated Regional Water Management Plan* (IRWMP) as well as the City's Water Conservation Program.

L. Promote Energy Efficiency and Conservation

1. Strategies: The Open Space Management Plan will promote energy efficiency and conservation by combating urban heat island effects with tree plantings, promoting infill and/or cluster development, and investigating opportunities for generating alternative energy.

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The Plan will promote energy efficiency and conservation as follows:

- Identifying potential locations for solar or wind energy generation (e.g., solar panels or wind turbines);
- Reducing the need for energy consumption needed for cooling by maintaining and increasing the City's tree canopy, which can reduce area temperatures by providing shade and reducing heat island effects;
- Encouraging infill and/or cluster development, and reducing energy consumption needed to support sprawl.

Indicators: 1) Increase in the number of trees planted or preserved on open space; 2) Decrease energy consumption; 3) Increase infill and/or cluster development; and 4) Increase the use of alternative energy sources.

M. Strengthen the Economy

1. Strategies: The Open Space Management Plan will strengthen the economy by increasing job opportunities (e.g., farming and agriculture, alternative energy), promoting infill and/or cluster development, increasing property values, and promoting public health.

The Plan will investigate opportunities to increase job opportunities in agriculture and farming by promoting use of open space for avocado orchards or nurseries. Additional jobs will be created in the alternative energy industry, if the City is able to identify appropriate locations for the installation of solar panels or wind turbines. Locally grown food also may reduce costs to the consumer, thereby increasing disposable income. An increase in infill and/or cluster development may also lead to additional disposable income as residents will be able to reduce costs associated with longer commutes and increased utility costs.

Protection of open space and improved access to nature/recreation opportunities also increase property values, which will in turn increase the tax base. In addition, open space provides opportunities for physical activity, which increases productivity and reduces health-related costs for individuals and the community. Finally, as Chino Hills continues to emerge as a healthy, environmentally responsible city, it will attract health-oriented, Green industries seeking eco-friendly locations and a Green customer base.

Indicators: 1) Increase the number of agricultural or farming related jobs; 2) Reduce living expenses through infill and/or cluster development and energy savings; 3) Increase the City's tax base; 4) Lower health related expenses; and 5) Increase Green Jobs.

STEP 3: PRIORITY CONSIDERATIONS

1. Collaboration: The Open Space Management Plan will be a collaborative document, with input obtained throughout the process from an expert advisory group. The group will meet at least twice during the planning process to ensure the objectives outlined as part of a sustainable community are fully addressed through the Plan. Section 6 contains letters of support from many of the organizations that will be invited to participate on the expert panel, including the Air Quality Management District, San Bernardino County, and the Chino Valley Independent Fire District. In addition, the City will seek collaboration from community and open space users by inviting their participation on an expert advisory panel that will meet throughout the planning process.

2. Sustainable Models and Products: The Open Space Management Plan will serve as a best practice for other communities seeking to limit sprawl and protect remaining open space and natural resources

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from over-development. The Plan will provide cities with a model for actively managing natural and open space. Unfortunately, such management is often overlooked, resulting in open space that can become unusable or underutilized, or even worse, have detrimental effects on the environment (e.g., water or soil contamination; increased wildfire danger).

The Plan will also serve as a tool for communities reluctant to restrict housing developers (and the tax base they bring with them), by encouraging alternative sources of revenue for the City and its residents, and promoting urban infill/cluster development. It will also delineate the positive environmental impact of preserved open space, including the absorption of carbon and the reduction in use of heating and cooling energy. One study of the great Chicago region, for instance, reported that one acre of tree cover absorbs 2.2 tons of carbon per year, and that increasing tree cover by 10% could reduce total heating and cooling energy use by 5-10% (McPherson et al, 1994).

The Plan will be shared through the SGC and City website and will be promoted through online resources and Planning periodicals.

3. Leveraged Resources: The City will leverage \$50,000 to support the proposed project (see Section 4A). The City is contributing in-kind staff hours from the City Manager's Office and the Community Development Department.

The Open Space Management Plan will allow the City to pursue additional funding opportunities through state and federal grant programs in order to implement infrastructure improvements identified during the planning process as priorities.

4. Climate Change Impacts: Chino Hills is located in an area with a high level of GHG emissions – one that exceeds the federal 8-hour ozone level standard more frequently than any other location in the United States. As a result, the City is faced with climate changes including rising temperatures and decreased rainfall. The proposed Open Space Management Plan will address these impacts by preserving open space, which will allow for:

- Increased access to trails and open space to encourage non-motorized transit;
- The promotion of infill and/or cluster development to provide residents the option for walking, biking, and using public transportation to meet their daily needs;
- Reduced fire danger by encouraging the use of native plantings;
- Reduced smoke from fires by providing better access to natural lands to help prevent and combat fires; and
- Increased tree planting and preservation, to offset emissions (a single tree absorbs about 1 ton of carbon dioxide over its lifetime) and to counteract heat island effects by providing shade.

5. Economically Disadvantaged Community: The Open Space Management Plan will increase access to trails and open space for use by both Chino Hills and other nearby communities, including less advantaged residents of Chino and Pomona. The Plan will also serve Chino Hills' Los Serranos neighborhood, one of the oldest communities within the City, and one of the most underserved. Over 30% of the families living in the Los Serranos neighborhood are low- to moderate-wage earners, over 25% of the families speak Spanish as their primary language, and the majority of homes are less than 1,000 square feet. At the area elementary school, 57 percent of students are eligible for the free lunch or reduced-price lunch program. The Plan will provide another opportunity for the City to address the aging infrastructure of this community. Already, the City has identified the Los Serranos neighborhood as a top priority for infrastructure improvements because the entire area either lacks basic amenities such as sidewalks, curbs, gutters, and street lights, or the existing infrastructure has reached its life

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expectancy. In particular, this community will benefit significantly from access to open space, as the neighborhood is without any public park space.

Step 4: Organizational Capacity

1. Relevant Expertise: The City has completed numerous planning documents, including plans for which multi-agency coordination and public participation were critical elements. The City is currently undergoing a green update of its General Plan, and has recently completed a Trail Master Plan and a Parks and Recreation Master Plan, all of which have required significant participation from multiple departments, other agencies and organizations, and the public.

In addition, the City has demonstrated expertise in completing state-funded grant programs, including several Safe Routes to Schools grants to complete pedestrian safety projects and State EPA grants to conduct stormwater infrastructure improvements. The City is currently implementing a grant from CALFIRE to plant approximately 500 trees on public open space throughout the City.

The planning process will be led by Ms. Kathy Gotch, the Assistant City Manager and a certified landscape architect. She has been with the City for over 20 years, first as the Director of Parks and Landscape for the Chino Hills Manager's office of San Bernardino County. She has since served the City in the Public Facilities and Operation and the Community Services Departments before assuming her current role in the City Manager's office. She has been integrally involved in every major planning effort within the City since it was incorporated. In addition, the City will obtain the services of an experienced planning consultant to manage the day-to-day development of the Plan. The consultant will be required to have expertise in developing an open space management plan that focuses on sustainability, knowledge or access to resources about cutting edge techniques to promote GHG emissions reductions and water and energy conservation, as well as skills in synthesizing technical data and input from a wide range of stakeholders.

2. Active, Strong Partnerships: The City Manager's office will coordinate support from other City departments as additional expertise is needed. Partnerships with outside agencies and stakeholders will also help to ensure the success of the proposed planning process. The City will develop an expert advisory group to provide feedback, identify sources of information, and brainstorm solutions throughout the process. Members may include representatives from the Air Quality Management District, SCAG, San Bernardino County, the Chino Valley Independent Fire District, the Natural Resources Conservation Service (NRCS), San Bernardino Associated Governments (SANBAG), and community members and open space users.

3. Managing Schedule and Budget: Ms. Gotch has more than 20 years experience managing similar efforts, and has a proven track record of delivering products on time and within budget. As the Project Manager, she will conduct weekly reviews of the project timeline and budget to monitor progress, allowing her to quickly react to any challenges. In addition, a monthly staff meeting with key project team members will ensure no delays or additional charges are overlooked.

4. Contingency Plan: If the project goes over budget, City staff will provide the additional in-kind staff support, funded through the City's general operating budget, needed to complete the project.

5. Workplan Implementation: Implementation is addressed in Task 25 of the Workplan (Section 4b).